September 25, 1952

Dr. P. R. Edwards
Communicable Diseases Center
Box 185, Chamblee, Georgia

Dear Dr, Edwards:

I am writing again to ask your help by way of cultures and sera for our genetic experiments with Salmonella.

Dr. Zinder, as you may know, is now at the Rockefeller Institute with Schneider, where he will have an opportunity to extend the studies initiated here. In addition, I am spending a fair part of my own time with Salmonella. For several weeks this summer, we had the pleasure of a visit from Dr. B.A.D. Stocker (of the London School of Hygiene), and we worked on the transfer of motility from H- forms to O-forms of the same and different serotypes. As a rule, this transfer does not alter the expected H-specificity of the bacteria. There was one rather complicated exception I may already have mentioned: an O-form derived from a monophasic (b) S. paratyphi B gave mostly b-- H forms when treated with "FA" from S. typhimurium, but in a few instances, i-- H forms were obtained. I have not been able to repeat the single incident when the latter occurred as a spontaneous motile mutant (and am therefore doubtful of that). The strain is so stable that wecobtained very few motile mutants with very extensive tests. On the other hand it responds very highly indeed to the appropriate FA, and thus makes a very nice demonstration of transduction. I am still planning on the discussed visit for some months hence, and hope to be able to demonstrate this in person at that time.

For the present, I would like to continue the recombination of antigens along the lines of the "hybrid" typhi x typhimurium experiments. The types paratyphi B, eastbourne, reading,and onarimon would seem to form a natural set of mutually complementary recombinants, and I thought it might be of some interest to try to duplicate or reconstruct them in the laboratory. I have a satisfactory set of paratyphi B, and one eastbourne from a doubtful lyophil vial, but must apply to you for the others. As occasional individual strains are "difficult", I would appreciate it if you could sendaas many as two or three independent isolates of the eastbourne, reading and enarimon, if they are available. Would it be possible for us to ask for 5-10 ml. clean, undiluted sera b;1,2.. and eh;1,5 for flagellar-immobilizations, and a few ml. of typing reagents for b, eh, and 5. It may be necessary for us later to prepare more concentrated monospecific sera for immobilization, but we can probably do the necessary absorptions ourselves.

Sincerely,

Joshua Lederberg